BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

NAME OF WORK:- Modified Estimate for Improvements to Roads and Drains at Telecom Layout Roads and Surrounding areas in Ward No. 13, (Doddabommasandra).

								Estimation Cost.Rs	2421930.57
Sl No	Description of work	Unit	Mesurement				Qty.	Rate	Amount
			No.	L	B	D			
1	Earth work Excavation by manual means for drains,canals, waste weir, draft, approach channels, key trenches, foundation of bridges and such simillar works in all kinds of soils , as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenaces required to complete the work. **(PWD SR 2021-22 Vol -I Pg No 5 item no 1.4.1)**	Cum							
	New Culvert								
			1.00	6.2	1.80	1.20	13.28		
	Desilting of Drain								
	Telecom Layout		2.00	190.00	0.45	0.45	76.95		
	Ganeshnagara Main Road		2.00	166.00	0.45	0.45	67.23		
	Total						**157.46**	204.60	**32216.00**
2	Providing and laying in position Plain Cement Concrete Mix 1:3:6 (M10) for levelling course for all works in foundation. Using 40 mm nominal size graded crushed coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. **(PWD SR 2021-22 Vol -I Pg 15 item no 2.1.3)**	Cum							
	For Culvert								
			1	6.0	1.50	0.15	1.35		
	Total						**1.35**	6109.40	**8248.00**
3	Providing Size Stone masonry with hard stone in foundation & plinth with Cement mortar 1:6 (1 cement : 6 coarse sand) **Item No. 5.4, Page No. 9, Vol - II PWD SR 2021-22**	Cum							

	New Culvert								
	1st Course								
			1x2	6.00	0.60	0.45	3.24		
	2nd Course								
			1x2	6.00	0.60	0.45	3.24		
	Total						**6.48**	5964.20	**38648.00**
4	Providing ruled pointing to cursed stone masonry with lime mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost all materials, labour, usage charges of machinery, curing complete as pre specification. **Item No. 21.10 Page No. 190, Vol - II PWD SR 2021-22**	Sqm							
	Pointing								
			1x2	6.20		0.90	11.16		
	Total						**11.16**	261.80	**2922.00**
5	Providing and laying in position plain cement concrete for levelling course for all works in foundation. The granite / trap / basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork shall be paid separately **Mix 1:3:6 (M10) Using 20 mm nominal size graded crushed coarse aggregate (PWD SR 2021-22 Vol -I Pg. 15 Item no 2.1.4)**	Cum							
	Culvert Bed Concrete		1	6.00	1.50	0.10	0.90		
	Ramp		1x2	6.00	0.70	0.15	1.26		
	Flagging Course								
	Telecom Layout		2x2	75.00	0.15	0.10	4.50		
	Ganeshnagara Main Road		2x2	150.00	0.15	0.10	9.00		
	Kerb Bottom								
	Ganeshnagara 7th Cross		2	125.00	0.20	0.10	5.00		
	Total						**20.66**	6300.80	**130175.00**
6	Providing and constructing load bearing wall with Solid Concrete blocks of size 400 x 150 x 200mm having block density more than 1800kg/m3 and minimum compressive strength of 4.00 N/mm2 conforming to IS 2185 (Part - I) - 2005 and constructed with CM 1:4 as per IS 2572:2005 including cost of all materials, labour, scaffolding and curing, usage charges of machinery etc complete as per specifications. **(PWD SR 2021-22 Vol - II Pg 17, item no 6.3)**	Cum							

	Flagging Course								
	Telecom Layout		1x2	73.00		0.40	58.40		
	Ganeshnagara Main Road		2x2	170.00		0.40	272.00		
	Total						**330.40**	1173.70	**387790.00**
7	Providing and Fixing pre cast Covering Slab made out of CC 1:2:4 with 10cm thick and Finishing cutting, including form work,curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc, copmplete. (Data Rate)	Sqm							
	Covering Slab								
	Telecom Layout		2	70.00	0.75		105.00		
	Missing Slabs		1	44.55			44.55		
	Total						**149.55**		
	Qty upto 125%						**86.40**	1972.00	**170381.00**
	Qty above 125%						**63.15**	1974.20	**124671.00**
	Date rate	2072.00							
	Tender Premium @ -4.72%	-97.80							
	Total	1974.20							
8	Providing and Fixing pre cast Covering Slab 250mm thick made out of CC 1:2:4 and jelly 20mm Down size with steel reinforcement including form work,curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc, complete. As per Engineer incharge	Sqm							
	For Culvert		1	6.00	1.25		7.50		
	Total						**7.50**	5037.00	**37778.00**
9	Earth work in surface Excavation by mechanical means for lowering & leveling the ground for all works other than foundation in all kinds of soils & upto depth not exceeding 300mm as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter including dressing of excavated surfaces, disposing off or levelling the excavated earth or sorting & stacking the selected earth for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools, usage of machinery & other appurtenances required to complete the work. In all kinds of soils upto 300 mm depth. **(PWD SR 21-22 Vol I Pg no 8 Item No 1.12)**	Cum							
	Road Work								
	Telecom Layout		1	200.00	5.00	0.20	200.00		
	Ganeshnagara 7th Cross		1	150.00	5.00	0.20	150.00		
							350.00		

	Consider 30% of Damaged Portion						105.00		
	Total						**105.00**	72.50	**7613.00**
10	Providing, laying, spreading and compacting graded stone aggregate to Wet Mix Macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver/grader in sub-base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density MORTH Specification No. 406 **(PWD SR 21-22 Vol III Pg no. 24 Item No. 4.27 (A))**	Cum							
	Road Work								
	Telecom Layout		1	200.00	5.00	0.25	250.00		
	Ganeshnagara 7th Cross		1	150.00	5.00	0.25	187.50		
							437.50		
	Consider 30% of Damaged Portion						131.25		
	Total						**131.25**	1600.00	**210000.00**
11	Providing and applying Primer Coat with SS1 grade Bitumen Emulsion on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.90 kg per m2 using mechanical means MORTH Specification No. 502 **(PWD SR 21-22 Vol III Pg no. 29 Item No. 5.1 A (i))**	Cum							
	Road Work								
	Telecom Layout		1	200.00	5.00		1000.00		
	Ganeshnagara 7th Cross		1	150.00	5.00		750.00		
							1750.00		
	Consider 30% of Damaged Portion						525.00		
	Total						**525.00**	46.20	**24255.00**
12	Providing and laying Dense Graded Bituminous Macadam with 40/60 TPH capacity HMP using crushed aggregates of specified grading, premixed with bituminous binder VG-30, @ 4.5 per cent by weight of total mix and filler, transporting the hot mix to work site, laying with mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 505 complete in all respects **(PWD SR 21-22 Vol III Pg no 33 Item No 5.12 (C))**	Cum							
	Road Work								

	Telecom Layout		1	200.00	5.00	0.05	50.00		
	Ganeshnagara 7th Cross		1	150.00	5.00	0.05	37.50		
							87.50		
	Consider 25% of Damaged Portion						21.88		
	Total						**21.88**	10052.92	**219908.00**
13	Providing and applying Tack Coat with RS1 Bituminous Emulsion using emulsion pressure distributor at the rate of 0.25 kg/m2 on the prepared bituminous surface cleaned with mechanical broom MORTH Specification No. 503 **(PWD SR 21-22 Vol III Pg no. 29 Item No 5.4 (ii))**	Sqm							
	Road Work								
	Telecom Layout		1	190.00	4.80		912.00		
	Ganeshnagara 7th Cross		1	140.00	4.70		658.00		
	Road Cutting /Patch work		2	1.70	1.80		6.12		
	Total						**1576.12**	15.40	**24272.00**
14	Providing and laying Bituminous Concrete with 40/60 TPH capacity hot mix plant using crushed aggregates of specified grading, premixed with bituminous binder VG-30, @ 5.4 percent of mix and filler, transporting the hot mix to work site, laying with mechanical paver finisher to the required grade,level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 507 complete in all respects **(PWD SR 21-22 Vol III Pg no 36 Item No 5.16)**	Cum							
	Road Work								
	Telecom Layout		1	190.00	4.80	0.04	36.48		
	Ganeshnagara 7th Cross		1	140.00	4.70	0.04	26.32		
	Road Cutting /Patch work		2	1.70	1.65	0.04	0.22		
	Total						**63.02**	11672.10	**735576.00**
15	Road Marking with Hot Applied Thermoplastic Compound with Reflectorising Glass Beads on Bituminous Surface Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads @ 250 g/ m2 area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35:2015.The finished surface to be level, uniform and free from streaks and holes. MORTH Specification No. 803 **(PWD SR 21-22 Vol III Pg no 57 Item No 8.15)**	Sqm							
	Road Work								
	Telecom Layout		2	190.00	0.10		38.00		
	Ganeshnagara 7th Cross		2	140.00	0.10		28.00		
	Total						**66.00**	525.80	**34703.00**

16	Loading and Unloading of Stone Boulder / Stone aggregates / Sand / Kankar / Moorum. (Tipper 14 m3) **(PWD SR 2021-22 Vol-III Page No.3, Item No.1.1C)**	Cum							
	Qty Vide Item No- (1+9)						241.46		
	Total						**241.46**	81.40	**19655.00**
18	Cost of Haulage Excluding Loading and Unloading Taking output 18 t load and lead 10 km = 180 t.km **(PWD SR 2021-22 Vol-III Page No.3, Item No.1.4B)**	T.Km							
	Qty frm Item No-18			241.46	1.28		309.07		
	Total						**309.07**	115.50	**35698.00**
	EIRL								
E1	Supplying and fixing M15 grade precast cement concrete 600 x 300 x 150 mm Kerb Stone for Roadway, Sidewalls and gutters fixed with CM 1:3 fixed and finsihed in line as per direction of Engineer in charge. **(PWD SR 2021-22 Vol III Pg no 146 Item no 6.3)**	Mtrs							
	Kerb Stones								
	Ganeshnagara 7th Cross		2	125.00			250.00		
							250.00		
	Basic rate	423.00							
	Area weightage 10%	42.30							
	Sub Total	465.30							
	Tender Premium @ -4.72%	-21.96					**250.00**	443.34	**110834.00**
		443.34							
E2	Painting Two Coats on New Concrete Surfaces Painting two coats after filling the surface with synthetic enamel paint in all shades on new plastered concretesurfaces. MORTH Chapter 803 **(PWD SR 2021-22 Vol III Pg no 56 Item No 8.10)**	Sqm							
	Kerb Stone Painting								
	Ganeshnagara 7th Cross		2	125.00		0.40	100.00		
	Basic rate	96.00							
	Area weightage 10%	9.60							
	Sub Total	105.60							
	Tender Premium @ -4.72%	-4.98							
		100.62							
	Total						**100.00**	100.62	**10062.00**
E3	Removing and resetting of footpath slab (Approved arrival rate)								
	Ganeshnagara Main Road	Sqm	1.00	275.00	0.90		247.50		
		Sqm	1.00	55.00	0.90		49.50		
							297.00		
	Consider 100%				Sub Total		297.00		
	Deduct 15% Missing Slabs						44.55		
				Total			**252.450**	**223.91**	**56525.57**
	Data Rate	**235.00**							

	Tender Premium @ -4.72%	-11.09							
		223.91							
								Grand Total	**2421930.57**

Rupees Twenty Four Lakh Twenty One Thousand Nine Thirty Rupees Only

435947.50
2857878.08

Assistant Engineer
Ward No. 10

Assistant Executive Engineer
Kodigehalli Sub Division

Executive Engineer
Byatarayanapura Division

Technical Sanction
Accorded For Rs 2421930.57
Head of Acc P3726
CER NO 45 Dt 15/12/23